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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,907	07/31/2003	Edward Litwinski	38190/267786	9632
826	7590	10/18/2005		
			EXAMINER	
			SAETHER, FLEMMING	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/631,907	LITWINSKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Flemming Saether	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 03 August 2005.  
 2a) This action is FINAL.                  2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 19,21,30,31 and 33-46 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 19,21,30,31 and 33-36 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 19, 30, 31 and 33-46 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims have been amended, and are supported by applicant's remarks, so as to limit the material of which the rivet is made to the group of materials listed in the claims. This is considered new matter because the disclosure as originally filed does disclose the material limited to the one of the specific group. The disclosure consistently used "comprising" when discussing the materials thus not limiting the material to the specific group. The amendment the claims adding "consist essentially of" is new matter. Similarly in regards to claim 38, the "consist essentially of" also constitutes new matter.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 19, 30, 31, 38, 39, 41 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japan reference JP 10195567A (Japan '567). In the translated abstract and use of the Japan '567 reference is disclosed an a rivet manufactured to include a matrix having a grain size of 5 micrometers or less which is within the claimed range. Japan further discloses the material to include aluminum and its combination with other materials would make an aluminum alloy. The stir welding is a product-by-process limitation wherein it is only the final product considered for patentability. In regards to claim 38, the material not having the grain size of 5 micrometers of less is such a small percentage of the overall volume (less than 8%) the structure would continue to "consist essentially of" the grain size of 5 micrometers also, the small amount of material which does not fall within the claimed range is "about" within the range.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21, 33-37, 40 and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '567 as applied to claim 19 and 38 above, and further in view of Briles (US 4,159,666). The translation of Japan '567 does not disclose the specific configuration of the rivet nor the rivet including titanium. Briles discloses a rivet having

a head as well as the equivalence of aluminum and titanium in rivets (column 3, lines 51-56). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to form the rivet of Japan '567 as having a head and of titanium as disclosed in Briles such that the rivet would conform with the substrates to prevent the formation of gaps at the head, as discussed in Briles. The particular aluminum alloy is known and would have been recognized to use depending upon the particular application.

#### ***Response to Remarks***

Applicant argues that since the Japan reference (JP 10195567A) includes materials other than aluminum which are outside the claimed 3 to 5 micron range the claims should be allowable. In response, the examiner agrees with applicants understanding of the Japan '567 reference however, for the reasons as set forth above, the examiner maintains that the reference continues to anticipate the claims. Specifically, in Japan '567 the aluminum combined with the other material would form an aluminum alloy by definition and the claim 38 the inclusion of "essentially" and "about" make the claim broad enough to be anticipated by Japan '567.

More importantly however, the rivet being limited to only the aluminum, titanium or an alloy thereof as well as the grain size limited to only grains between 3 and 5 microns is new matter. As addressed above, the application, when discussing the materials and grain size consistently uses the term "comprise" which does not limit the

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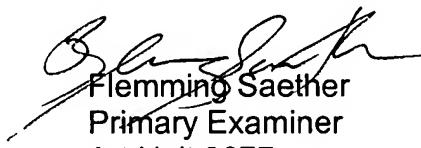
material and grain size to only that disclosed. Indeed, "comprise", by definition, allows for the inclusion of materials and grain sizes other than those disclosed so long as at least the comprised materials and grain sizes are included.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 571-272-7071. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Flemming Saether  
Primary Examiner  
Art Unit 3677